

A NEW SPECIES OF *PLATAEA* (LEPIDOPTERA: GEOMETRIDAE)  
FROM TEXAS

EDWARD C. KNUDSON

808 Woodstock, Bellaire, Texas 77401.

---

*Abstract.*—*Plataea blanchardaria* Knudson is described from adults of both sexes collected in Texas. Adults of both sexes and genitalia are figured.

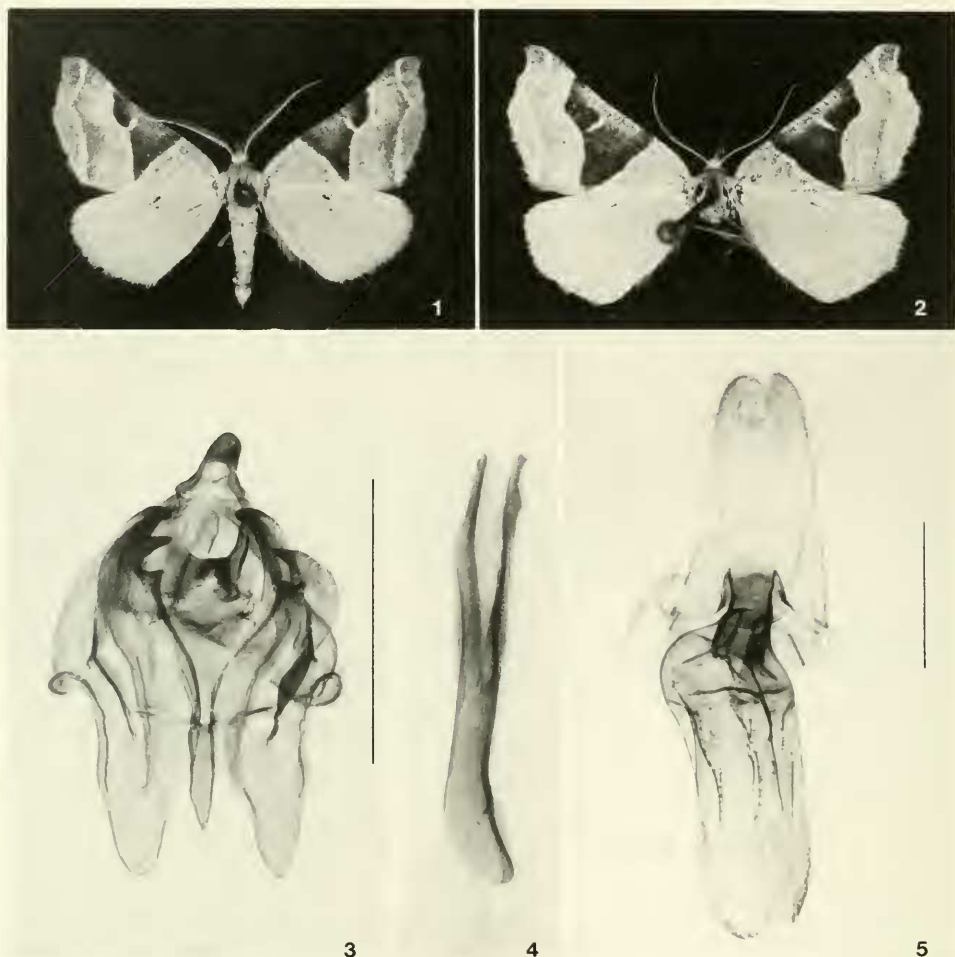
---

The geometrid genus *Plataea* was revised by Rindge (1976), at which time six species were recognized from western North American and two new species were described from Mexico. The moths are similar in general appearance, being silvery gray or brown, usually with a darker subtriangular median area. As pointed out by Rindge (1976), the male genitalia show an unusual degree of variability between the different species, although other characters are quite uniform. The species described below was collected first by A. & M. E. Blanchard and was assumed to be the same as *P. calcaria* (Pearsall), to which it bears close superficial resemblance. Later, however, when a series of both sexes was obtained, it became obvious that those specimens did not represent *P. calcaria*, which is sexually dimorphic and has very different genitalia.

*Plataea blanchardaria* E. Knudson, NEW SPECIES

Figs. 1-5

*Description.*—*Head:* Front and vertex pale ochreous brown (buff colored); front flat, with conical scale tuft extending anteriorly; labial palpi buff colored, porrect, exceeding front by 1 eye diameter. Male antennae bipectinate to apex; pectinations vary from 4× the length of segments near middle to ½ the length of segments at apex; shaft and pectinations buff colored speckled with dark brown. Female antennae shortly bipectinate, terminal 4 or 5 segments serrate. *Thorax:* Buff colored above and below; legs with fuscous irroration on anterior surface of femora and tibiae. Foretibia with epiphysis arising at middle and extending to just beyond tibio-tarsal joint. *Abdomen:* Buff colored above and below. *Forewings:* Sexes alike. Upper surface: Ground color varies from olivaceous white to yellowish white, finely striate with olive brown or orange brown especially along coastal margin. Antemedial line whitish, from costal margin ⅓ the distance from base, outwardly oblique to just above dorsal margin just beyond middle, from where it joins the postmedial line. Postmedial line whitish, from costal margin at ⅓ the distance from apex, convex inwardly from lower half of cell to near dorsal margin, where it joins the antemedial line, enclosing the contrastingly darker median area. Median area olivaceous or orange-brown, lighter along costal margin and containing a pale comma-shaped discal spot, which may or may not touch the postmedial line. Subterminal line whitish, produced outwardly at vein M2, margined inwardly



Figs. 1-5. *Plataea blanchardaria*. 1, Holotype male. 2, Female. 3, Male genitalia of paratype (slide ECK 1209), ventral view, aedeagus removed. 4, Aedeagus (slide ECK 1222). 5, Female genitalia of paratype (slide ECK 1220). Figs. 3 and 4 at same magnification. Line segments = 1 mm.

with darker suffusion and outwardly with darker suffusion near apex. Fringe concolorous with ground, checkered with blackish at vein ends. Under surface: pale olivaceous or orange brown, unmarked, except for pale subterminal line near apex. *Hindwings*: Upper surface: Brownish white to pale orange, slightly darker towards termen; thin dark terminal line; fringe whitish. Under surface: Whitish, striated with olivaceous or orange brown, especially along cubital margin. *Length of forewings*: Males:  $n = 8$ , 11.9-12.4 mm, avg. 12.2 mm. Females:  $n = 5$ , 13.8-14.6 mm, avg. 14.2 mm. *Male genitalia* (Figs. 3, 4): Uncus well sclerotized, projecting ventrally, broadly rounded dorsally, apex with a single minute ventrally directed point; gnathos well sclerotized, U-shaped, with elongate, undivided median process. Valvae complex, heavily sclerotized, and broadly fused to saccus and juxta; saccus with two broad, inwardly curving processes posteriorly; costa produced anteriorly into a sclerotized rod, posteriorly, with apex an inwardly

directed blunt point, giving each valve a three-lobed appearance. Saccus invaginate medially with broad rounded lateral lobes; juxta Y-shaped, with elongate anterior median process. *Male genitalia*: Aedeagus well sclerotized, bifid posteriorly for half its total length, vesica membranous. Eighth abdominal segment simple, unmodified. *Female genitalia* (Fig. 5): Papillae anales broad, membranous, with numerous short setae; apophyses posteriores  $3\times$  the length of apophyses anteriores; sterigma a short sclerotized tube with lamina antevaginalis well sclerotized laterally; ductus bursae short, well sclerotized, with 3–4 longitudinal ridges; corpus bursae elongate, posterior  $\frac{2}{3}$  sclerotized, with 7–8 serrate longitudinal ridges, anterior  $\frac{1}{3}$  membranous.

Types.—Holotype (Fig. 1):  $\delta$  8 mi W of Premont, Duval Co., Texas, 30-VI-85, collected by J. E. Gillasp, and deposited in the National Museum of Natural History, Washington, D.C. (NMNH). Paratypes: 4 mi NE of Jct. FM 1329/2295, Duval Co., Texas, 27-V-85, 6  $\delta$ , 1  $\varphi$ , collected by J. E. Gillasp, 1  $\delta$  in American Museum of Natural History, New York, N.Y. (AMNH), 1  $\delta$  retained by author, others by collector; Mitchell Ranch, Live Oak Co., Texas, 30-XI-85, 1  $\delta$ , collected by Pam H. Prewitt, in Texas A&I University collection: U.S. 90 at Nueces River (8 miles west of Uvalde), Uvalde Co., Texas, 12-IX-71, 1  $\delta$ , collected by A. & M. E. Blanchard, in NMNH; Seminole Canyon State Park, Val Verde Co., Texas, 23-V-81, 5  $\varphi$ , collected by E. C. Knudson, 1 in NMNH (Fig. 2), 1 in AMNH, 3 retained by author.

Remarks.—*Plataea blanchardaria* is superficially similar to *P. calcaria*, although females of *calcaria* do not have dark suffusion in the median area of the forewing. The genitalia of both sexes are very different from all other *Plataea* species but with similarities to *P. calcaria*. Male *calcaria* have a single, inwardly directed process of the sacculus and a similar though reduced juxta, differing most markedly in the much longer costal portion of the valve and the much smaller saccus. Female genitalia of both species are similar, but those of *calcaria* lack the sclerotized serrate ridges in the corpus bursae. This new species is named to honor André Blanchard in gratitude for the immeasurable assistance and inspiration that he has given me.

#### ACKNOWLEDGMENTS

The author is very grateful to James E. Gillasp for the loan (and gift) of specimens and to the National Museum of Natural History for loan of specimens. I am also very grateful to Douglas C. Ferguson and Frederick H. Rindge for reviewing the manuscript and providing helpful suggestions. I thank the Texas Parks and Wildlife Department for providing access to collecting some of the type series. Finally, I thank André Blanchard for assistance in preparing the photographic plates.

#### LITERATURE CITED

- Rindge, F. H. 1976. A revision of the moth genus *Plataea* (Lepidoptera, Geometridae). Am. Mus. Novit. No. 2595: pp. 1–27.